REACTION SYSTEMS FOR MAKING N-(PHOSPHONOMETHYL)GLYCINE COMPOUNDS

Abstract of the Disclosure

This invention generally relates to liquid phase oxidation processes for making N-(phosphonomethyl)glycine (also known in the agricultural chemical industry as glyphosate) and related compounds. This invention, for example, particularly relates to processes wherein an N-(phosphonomethyl)iminodiacetic acid (NPMIDA) substrate (i.e., N-(phosphonomethyl)iminodiacetic acid, a salt of N-(phosphonomethyl)iminodiacetic acid, or an ester of N-(phosphonomethyl)iminodiacetic acid) is continuously oxidized to form an N-(phosphonomethyl)glycine product (i.e., N-(phosphonomethyl)glycine, a salt of N-(phosphonomethyl)glycine, or an ester of N-(phosphonomethyl)glycine). This invention also, for example, particularly relates to processes wherein an N-(phosphonomethyl)iminodiacetic acid substrate is oxidized to form an N-(phosphonomethyl)glycine product, which, in turn, is crystallized (at least in part) in an adiabatic crystallizer.